The Abstract in the Online Era

Abstracts have always been a crucial element to explain your study quickly and succinctly to journal editors and researchers and prompt them to read further. But with the ubiquity of online publication databases, writing a compelling abstract is even more important today than it was in the days of bound paper manuscripts. Abstracts serve the function of "selling" your work, and it could thus be compared to the "executive summary" employed in business settings—the official briefing on what is important about your research. With the majority of transactions being conducted on the Internet these days, this means that you have even less time to impress readers—and increased competition in terms of other abstracts out there to read.

APCI (Academic Publishing and Conferences International) notes that there are 12 questions or "points" considered in the selection process for journals and conferences and stresses the importance of having an abstract that ticks all of these boxes. Because it is often the ONLY chance you have to convince readers to keep reading, it is important that you spend time and energy crafting an abstract that both faithfully represents the central parts of your study, as well as captivates your audience.

With that in mind, follow these suggestions when structuring and writing your abstract, and learn how exactly to put these ideas into a concrete abstract that will captivate readers.

Before You Start Writing Your Abstract...

Decide which type of abstract you need to write

All abstracts are written with the same essential objective: to give a summary of your study. But there are two basic styles of abstract: descriptive and informative. Here is a brief delineation of the two:

- **Descriptive abstract**: 100-200 words in length; indicates the type of information found in the paper; explains the purpose, objective, and methods of the paper but omit the results and conclusion
- <u>Informative abstracts</u>: one paragraph to one page in length; a truncated version of your paper that summarizes every aspect of the study, including the results; acts as a "surrogate" for the research itself, standing in for the larger paper

Of the two types, informative abstracts are much more common, and they are widely used for submission to journals and conferences. Informative abstracts apply to lengthier and more technical research, while descriptive abstracts are more suitable for shorter papers and articles. The best method of determining which abstract type you need to use is to follow the instructions for journal submissions and to read as many other published articles in those journals as possible.

Research all of the guidelines and requirements

As you will read time and again in any article about research writing, you should always closely follow the specific guidelines and requirements indicated—be it for publication in a journal, for consideration at a conference, or even for a class assignment. When it comes to journals specifically, EVERY publisher has a strict way of doing things. Here are some common questions that are usually addressed in their guidelines:

- Is there a maximum or minimum word/character length?
- What are the style and formatting requirements?
- What is the appropriate abstract type?
- Are there any specific content or organization rules that apply?

Follow the stated rules the first time you submit and to avoid your work being thrown in the "circular file" right off the bat.

Identify your audience

The main purpose of your abstract is to lead researchers to your work (once it is published). In scientific journals, abstracts let readers decide whether the research discussed is relevant to their own interests or study. Abstracts also help readers understand your main argument quickly. Consider these questions as you write your abstract:

- Are other academics in your field the main target of your study?
- Will your study perhaps be useful to members of the general public?
- Do the results of your research have wider implications that should be stressed in the abstract?

While Outlining and Writing Your Abstract...

Provide only relevant and useful information

Just as your <u>research paper title</u> should cover as much ground as possible in a few short words, your abstract must cover *all* parts of your study in order to fully explain your paper and research. Because it must accomplish this task in the space of only a few hundred words, it is important not to include ambiguous references or phrases that will confuse the reader or mislead them about the content and objectives of your research. Follow these *dos* and *don'ts* when it comes to what kind of writing to include:

- Avoid acronyms or abbreviations since these will need to be explained in order to make sense to the reader, which takes up valuable abstract real estate. Instead, explain these terms in the Introduction
- Only use references to people or other words if they are well-known. Otherwise, generally avoid referencing anything outside of your study in the abstract.
- Never include tables, figures, sources, or long quotations in your abstract; you will have plenty of time to present and refer to these in the body of your paper.

Use keywords to attract more readers

A vital search tool is the "keywords" section that lists the most relevant terms directly underneath the abstract. Think of these keywords as the "tubes" that readers will seek and enter—via queries on databases and search engines—to ultimately land at their destination, which is your paper. The keywords should thus be words that are commonly used in searches but should also be highly relevant to your work and found in the text of your abstract. Include 5-10 important words or short phrases central to your research in both the abstract and keywords sections.

For example, if you're writing a paper on the prevalence of obesity among lower classes that crosses international boundaries, include terms like "obesity," "prevalence," "international," "lower classes," and "cross-cultural." These are terms that should net a wide array of people interested in your topic of study.

The Structure of the Abstract

As mentioned above, the abstract (especially the informative abstract) acts as a surrogate or synopsis of your research paper, doing almost as much work as the thousands of words that follows it in the body. In the hard sciences and most social sciences, the abstract includes the following sections and organizational schema. Each section is quite compact—only a single sentence or two, although there is room for expansion if one element or statement is particularly interesting or compelling. As the abstract is almost always one long paragraph, the individual sections should naturally merge into one another to create a holistic effect. Use the following as a checklist to ensure that you have included all of the necessary content in your abstract.

- 1) Identify your purpose and motivation. So your research is about rabies in Brazilian squirrels. So what? Why is this important? You should start your abstract by explaining why people should care about this study—why is it significant to your field and perhaps to the wider world? And what is exact purpose of your study; what are you trying to achieve? Start by answering the following questions:
- What made you decide to do this study or project?

- Why is this study important to your field or to the lay reader?
- Why should someone read your entire essay?

In summary, the first section of your abstract should include the importance of the research and the impact it might.

- **2)** Explain the problem you are addressing. Stating the "problem" that your research addresses is the corollary to why your specific study is important and necessary. For instance, even if the issue of "rabies in Brazilian squirrels" is important, what is the problem—the "missing piece of the puzzle"—that your study helps resolve? You can combine the problem with the motivation section, but from a perspective of organization and clarity, it is best to separate the two. Here are some precise questions to address:
- What is your research trying to better understand or what problem is it trying to solve?
- What is the scope of your study—does it try to explain something general or specific?
- What is your central claim or argument?
 - **3) Discuss your approach (Methods and Materials).** You have establish the importance of the research, your motivation for studying this issue, and the specific problem your paper addresses. Not you need to discuss *how* you solved or made progress on this problem—how you conducted your research. If your study includes your own work or that of your team, describe that here. If in your paper you reviewed the work of others, explain this here. Did you use analytic models? A simulation? A double-blind study? A case study? You are basically showing the reader the internal engine of your research machine and how it functioned in the study. Be sure to:
- Detail your research—include methods/type of the study, your variables, and the extent of the work
- Briefly present evidence to support your claim
- Highlight your most important sources
 - **4) Summarize your results.** Here you will give an overview of the outcome of your study. Avoid using too many vague qualitative terms (e.g, "very," "small," "tremendous") and try to use at least some quantitative terms (i.e., percentages, figures, numbers). Save your qualitative language for the conclusion statement. Answer questions like these:
- What did your study yield in concrete terms (e.g., trends, figures, correlation between phenomena)?
- How did your results compare to your hypothesis? Was the study successful?
- Where there any highly unexpected outcomes or were they all largely predicted?
 - **5) State your conclusion.** In the last section of your abstract, you will give a statement about the implications of your study. Be sure to connect this statement closely to your results and not the area of study in general. Are the results of this study going to shake up the scientific world? Will they impact how people see "Brazilian squirrels"? Or are the implications minor? Try not to boast about your study or present its impact as *too* far-reaching, as researchers and journals will tend to be skeptical of bold claims in scientific papers. Answer one of these questions:
- What are the exact effects of these results on my field? On the wider world?
- What other kind of study would yield further solutions to problems?
- What other information is needed to expand knowledge in this area?

After Completing Your First Draft...

Do basic revisions

The abstract, like any piece of academic writing, should be revised before being considered complete. Check it for grammatical and spelling errors and make sure it is formatted properly.

Get feedback from a peer

Having a second set of eyes to read your abstract is a great way to find out whether you've summarized your research well. Find a reader who understands research papers but is not an expert in this field or is not affiliated with your study. Ask

your reader to summarize what your study is about (including all key points of each section). This should tell you if you have communicated your key points clearly.

In addition to research peers, consider consulting with a professor or even a specialist or generalist writing center consultant about your abstract. Use any resource that helps you see your work from another perspective.

Consider getting your abstract revised by a <u>professional editor</u>

While peer feedback is quite important to ensure effectiveness of your abstract content, it may be a good idea to allow a professional to look at your work to make sure there are no mistakes in grammar, spelling, mechanics, style, or formatting. The presence of basic errors in the abstract may not affect your content, but it might dissuade someone from reading your entire study.

More Rules of Thumb to Follow

Write your abstract after completing your paper

Although the abstract goes at the beginning of your manuscript, it does not merely introduce your research topic (that is the job of the title), but summarizes your entire paper. Writing the abstract last will ensure that it is complete and consistent with the findings and statements in your paper.

Keep your content in order

Both questions and answers should be organized in a standard and familiar way to make the content easier for readers to absorb. Ideally, it should mimic the overall format of your essay and the classic <u>"introduction," "body," and "conclusion" form</u>, even if the parts are not neatly divided as such.

Write the abstract from scratch

Because the abstract is a self-contained entity (viewed by readers separately from the body of the paper), you should write it separately as well. Never copy and paste direct quotes from the paper and avoid paraphrasing sentences in the paper. Using new vocabulary and phrases will keep your abstract interesting and free of redundancies while conserving space.

Don't go into too much detail

Again, the density of your abstract makes it incompatible with including specific points other than possibly names or locations. You can make references to terms, but do not explain or define them in the abstract. Try to strike a balance between being specific to your study but presenting a relatively broad overview of your work.

Resources Used in This Article and Additional Reading

- 1. Hartley, James. Academic writing and publishing: a practical guide. New York: Routledge, 2010. Print.
- 2. Penn State College of Earth and Mineral Sciences Blog: "Descriptive Abstracts." https://www.e-education.psu.edu/styleforstudents/c6 p8.html
- 3. Academic Conferences and Publishing International: "Abstract Guidelines for Conference Papers." https://www.academic-conferences.org/policies/abstract-guidelines-for-papers/
- 4. UNC College of Arts and Sciences Writing Center Blog: https://writingcenter.unc.edu/tips-and-tools/abstracts/
- 5. *Wordvice* Blog: "How to Choose the Best Title for Your Manuscript." https://wordvice.com/best-title-for-journal-manuscript/
- 6. Wordvice YouTube Channel: "How to Create a Title for Your Research Paper."
- 7. *Management and Economics in Construction* Blog: https://cmeforum.wordpress.com/2012/01/04/how-to-write-informative-abstracts/

- 8. *Wordvice Blog:* "Choosing the Best Keywords for Your Paper." https://wordvice.com/choosing-research-paper-keywords/
- 9. Wordvice YouTube Channel: "Parts of a Research Paper." https://www.youtube.com/watch?v=aO6ipI-d2fw
- 10. *ScienceDocs* Inc. Blog: "5 Common Mistakes to Avoid When Writing a Discussion." https://www.sciencedocs.com/writing-a-research-paper-discussion/